

## Draft St. Louis Control Strategy Matrix

### January 2005

SOURCE CATEGORY	CONTROLS ACCOUNTED FOR IN 2002 INVENTORY	CONTROLS ON THE WAY OR PROPOSED REGULATIONS (REDUCTIONS AFTER 2002)	CANDIDATE CONTROL MEASURES
Fuel Combustion- Utility	PSD/NSR/NSPS; RACT in NAA	NOx SIP Call	Mercury MACT
	Title IV SO2 Emission Allowances	Clean Air Interstate Rule	Controls beyond CAIR Emission Reductions
	Title IV Phase I/II NOx Limits	Combustion Turbine MACT	Conservation/ Energy efficiency
			Fuel Switching- Coal to Natural Gas
			Fuel Switching- high-sulfur to low-sulfur coal
			Renewables (biomass, solar, hydro and wind)
Fuel Combustion- Industrial	PSD/NSR/NSPS; RACT in NAA	NOx SIP Call	Beyond NOx SIP call emission limits
		Boiler/ Heater/ RICE MACT	Lower size threshold for NOx SIP Call Limits
			Fuel switching during ozone season
			Incentives for co-generation
Fuel Combustion- Comm/ Inst			Conservation/ Energy Efficiency
			Incentives for Co-generation
Highway Vehicles- Gasoline	Tier I Emission Standards	Tier II Tailpipe/ Sulfur Standards	Transportation control measures (transit, HOV lanes, road pricing, commuter alternatives, etc)
	I/M Milwaukee, Chicago, Louisville, St. Louis, Cleveland/Akron, Dayton/Springfield, and Cincinnati		I/M more stringent/ greater geographic coverage; remote sensing,high emitting vehicle scrappage
	RFG Phase II in Chicago, Milwaukee, St. Louis (MO)		Clean Fuel Fleets
	Reid Vapor Pressure limits in non-RFG counties		California Low Emission Vehicles
	Stage II Vapor Recovery in St. Louis (MO)		Reformulated Gasoline Opt-in/ Lower RVP
			Alternative fuels- SEMCOG
			Improving fuel efficiency
Highway Vehicles- Diesel	Heavy Duty Diesel Standards	Heavy duty diesel (2007) engine standards/ low sulfur fuel	Heavy duty vehicle testing
		Clean School Bus USA	Heavy duty idling reduction
		Voluntary diesel retrofit program	Expand fleet retrofit programs
Nonroad- Gasoline	Phase I Small SI Engine Standards	Phase 2 Small SI engine standards	Container spillage control measures

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		Recreational Vehicle standards	Subsidize electric lawnmowers
Nonroad- Diesel	CI Engine standards	2004 nonroad diesel engines and sulfur rule	Electric/ alternative fuels
		Voluntary diesel retrofit program	Expand engine retrofit programs
Nonroad- Aircraft	ICAO emission standards		
Nonroad- Marine Vessels	1999 Commercial marine Diesel rule	New Commercial marine engine standards	
Nonroad- Railroads	1997 Federal locomotive rule	New railroad locomotive standards	
Nonroad- LPG and NG		Large SI engine standards	
Fuel Combustion- Residential			Wood stove/ fireplace reductions
			Wood stove replacement program (trade-in)
			Education and advisory program
			Reduced residential energy demand
			SCAQMD Rule 1121 residential water heater NOx controls
Waste Disposal and Recycling- Industrial	PSD/NSR/NSPS; RACT in NAA		Gas collection systems at landfills
	2-,4-,7-year MACT		
Waste Disposal and Recycling- - Open Burning	Open Burning regulations		Mandatory/ voluntary burning bans
Solvents- Degreasing	2-,4-,7-year MACT		Conversion to non-VOC solvents
	State Rules		SCAQMD 1122 (VOC content limit)
Solvents- Dry Cleaning	2-,4-,7-year MACT		Non-VOC solvents or emission controls
Solvents- Graphic Arts	2-,4-,7-year MACT		Low VOC materials or emission controls (Permanent Total Enclosures and Incineration)
Solvents- Asphalt Application			Low VOC formulations
Solvents- Pesticide Application			Low VOC formulations
			Better Pest Management practices
			Limit pesticide application in ozone season
Solvents- Consumer Solvents	Part 59 Consumer Product Rule		CARB Mid-term and Long-term limits
Solvents- Industrial Surface Coating	PSD/NSR/NSPS; RACT in NAA	10-year MACT	Beyond CTG RACT or statewide RACT
	2-,4-,7-year MACT		
Solvents- Architectural/ Maintenance coating	Part 59 AIM Federal Rule		OTC Model Rule; SCAQMD Phase III limits

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Solvents- Non-industrial surface coating			CARB/SCAQMD rules
Solvents- Auto Refinishing	Part 59 Auto Refinish Federal Rule		CARB BART limits
Industrial Process- Chemical Mfg	PSD/NSR/NSPS; RACT in NAA	10-year MACT	RACT or statewide RACT
	2-,4-,7-year MACT	RACT in 8-hour NAA	
Industrial Process- Metals	PSD/NSR/NSPS; RACT in NAA	10-year MACT	RACT or statewide RACT
	2-,4-,7-year MACT		Revisit PM limits for steel mills
Industrial Process- Petroleum Refinery	PSD/NSR/NSPS; RACT in NAA	CCU/CRU/SRU MACT	RACT or statewide RACT
	2-,4-,7-year MACT		Alternatives to flaring; smart LDAR
Industrial Process- Other NEC (includes cement and pulp/paper)	PSD/NSR/NSPS; RACT in NAA	10-year MACT	RACT or statewide RACT
	2-,4-,7-year MACT		Cement kiln/pulp mill controls?
Petroleum Storage/ Transport- Industrial	PSD/NSR/NSPS; RACT in NAA	Organic liquids 10-year MACT	Beyond CTG RACT or statewide RACT
	2-,4-,7-year MACT		Lower tank applicability threshold
Petroleum Storage/Transport- Service St.	Stage I/II RACT		Statewide Stage II
			Stage I and II for marinas
			California certification of vapor recovery
			Portable container spillage measures
Agricultural Crops			Dust control programs
Construction			Dust control programs
Fires- Structural/Prescribed/Wild			
Paved Roads			Vacuum Sweeping
Unpaved Roads			Chemical stabilization or paving
Livestock waste			Chemical additives
Fertilizer Applications			